09965745.100101

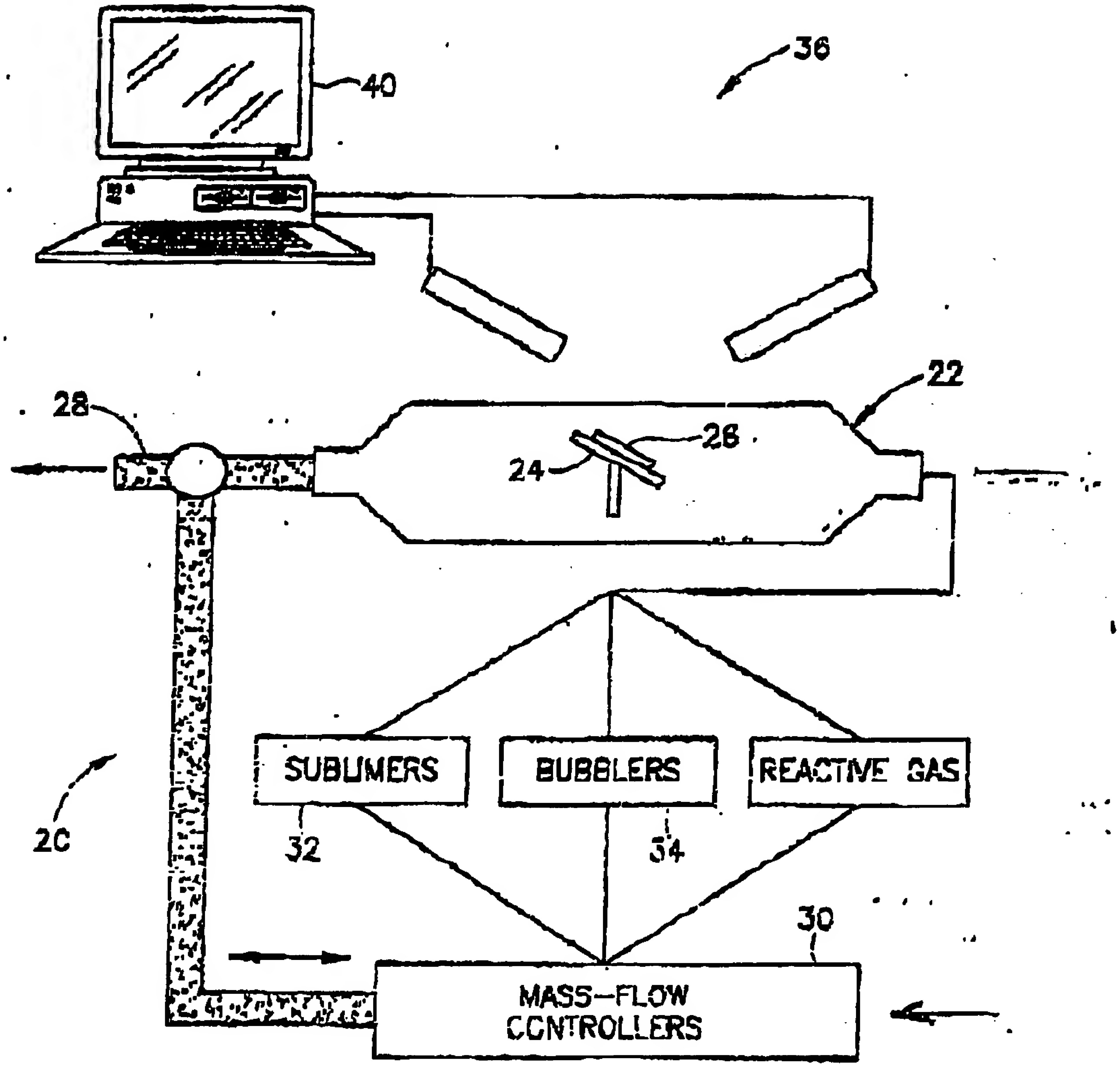


FIG.1

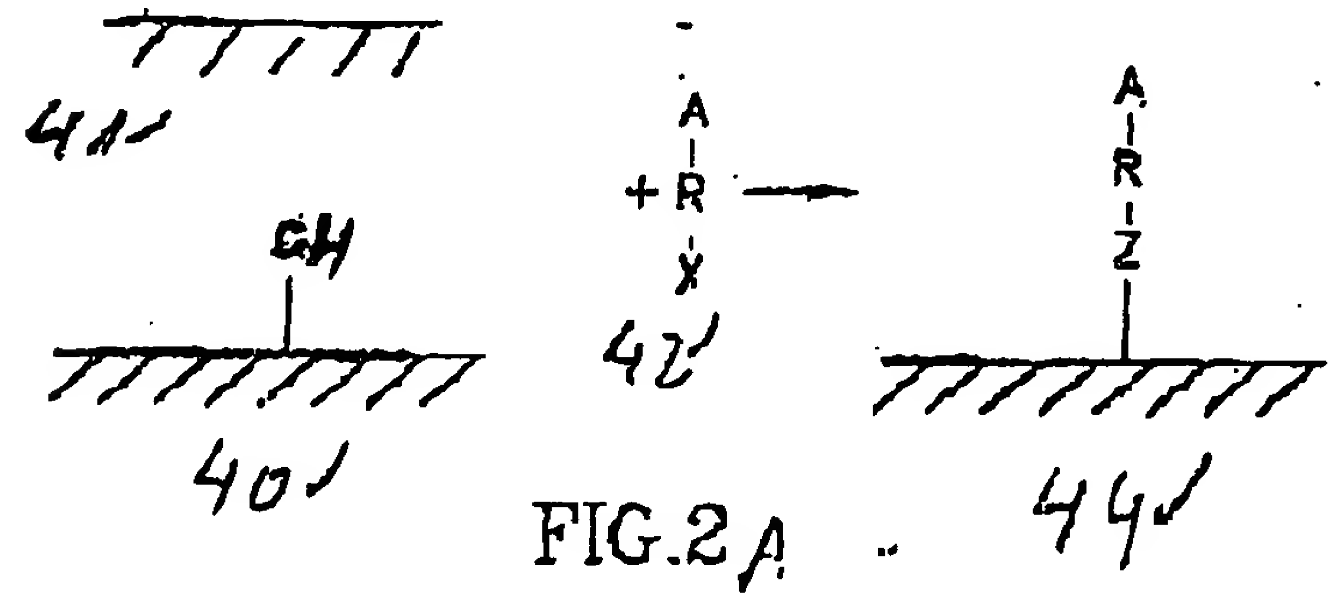


FIG.2A

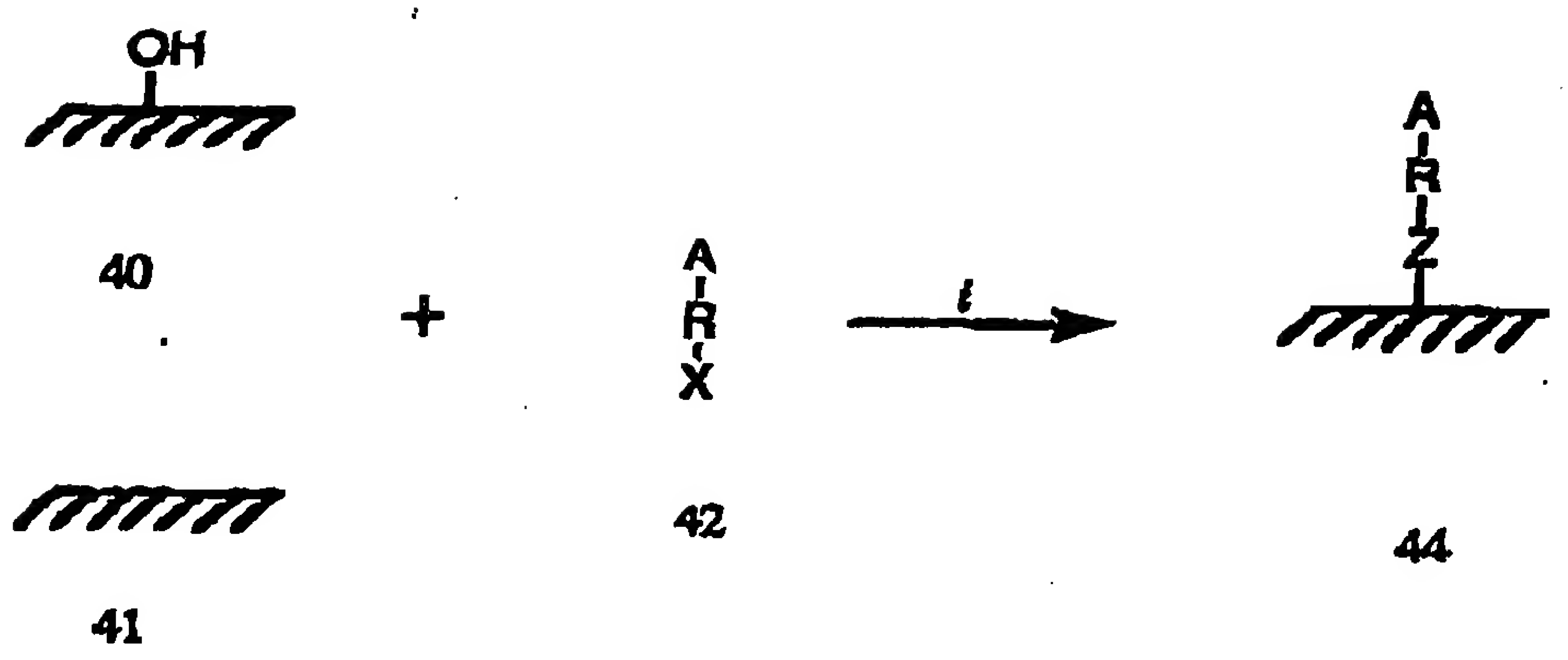


FIG.2A

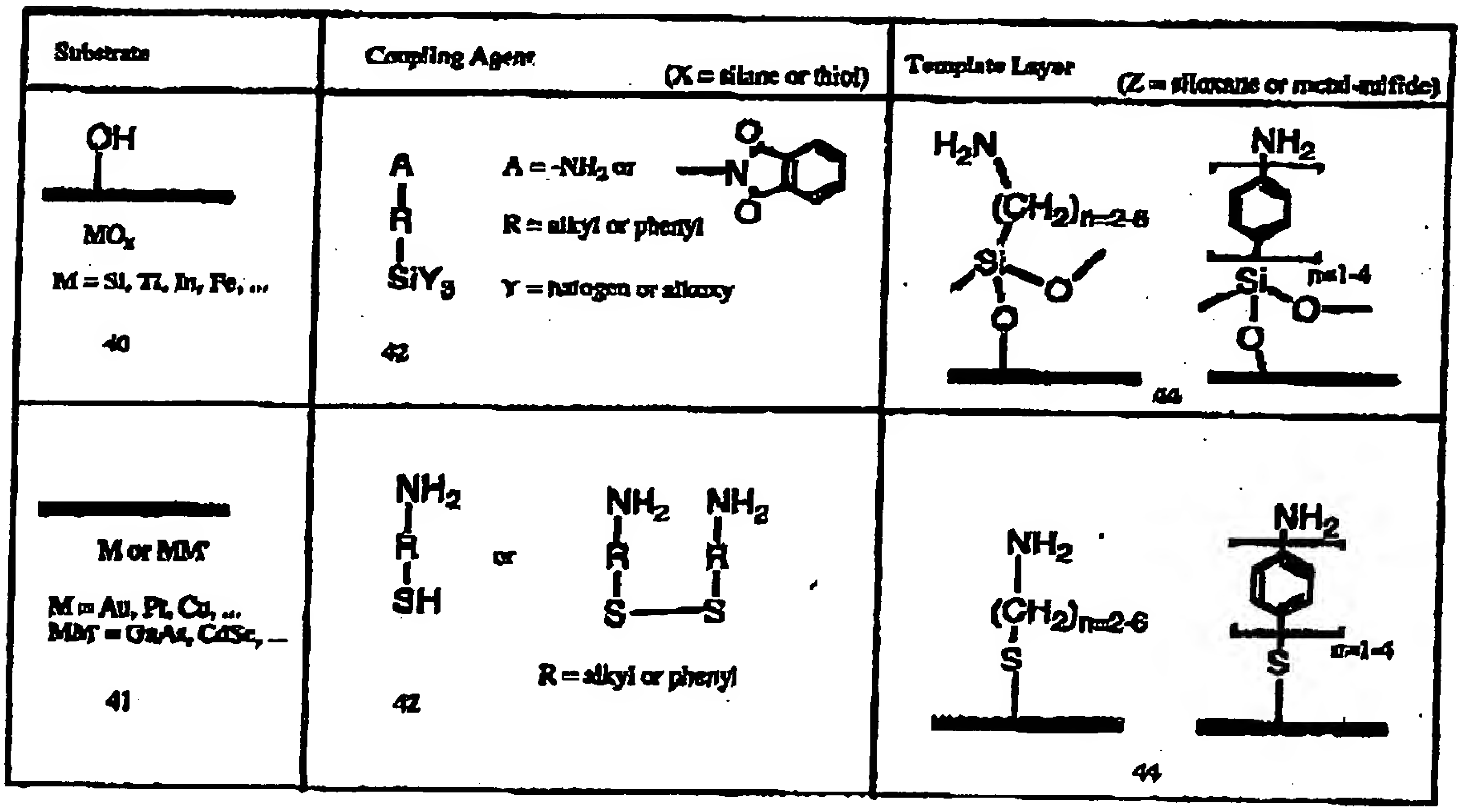


FIG.2B

09629745 .100101

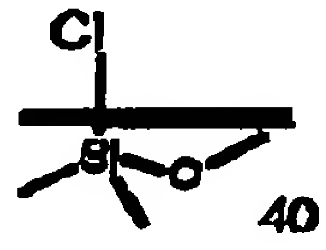
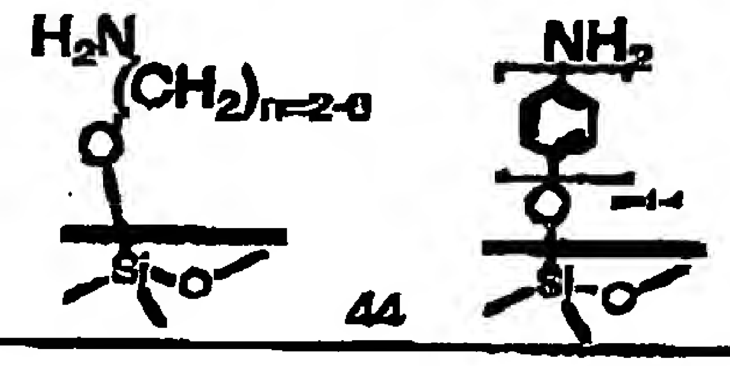
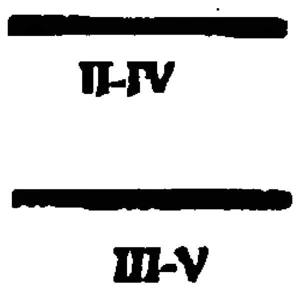
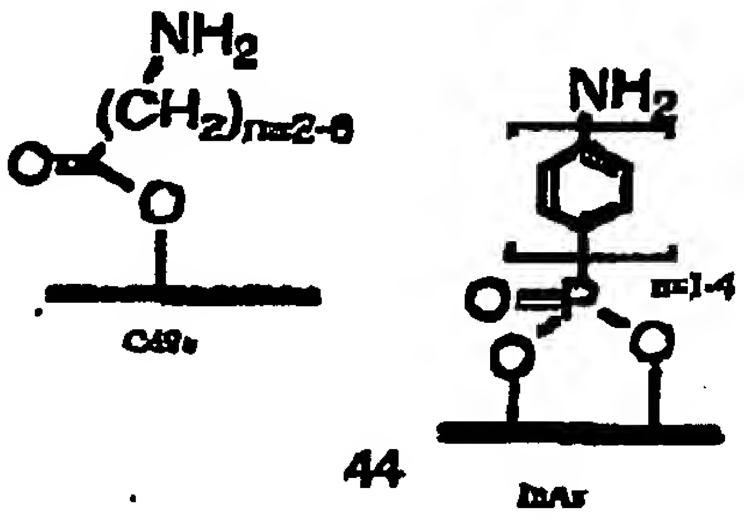
Substrate	Coupling Agent (X = OH, CO_2H, PO_3H_2)	Template Layer (Z = alkoxysilane, phosphate, or carboxylate)
	$HO\text{-}R\text{-}NH_2$ R = alkyl or phenyl 42	
 41	$HOOC\text{-}R\text{-}NH_2$ $(HO)_2OP\text{-}R\text{-}NH_2$ R = alkyl or phenyl 42	

FIG.2B cont'd

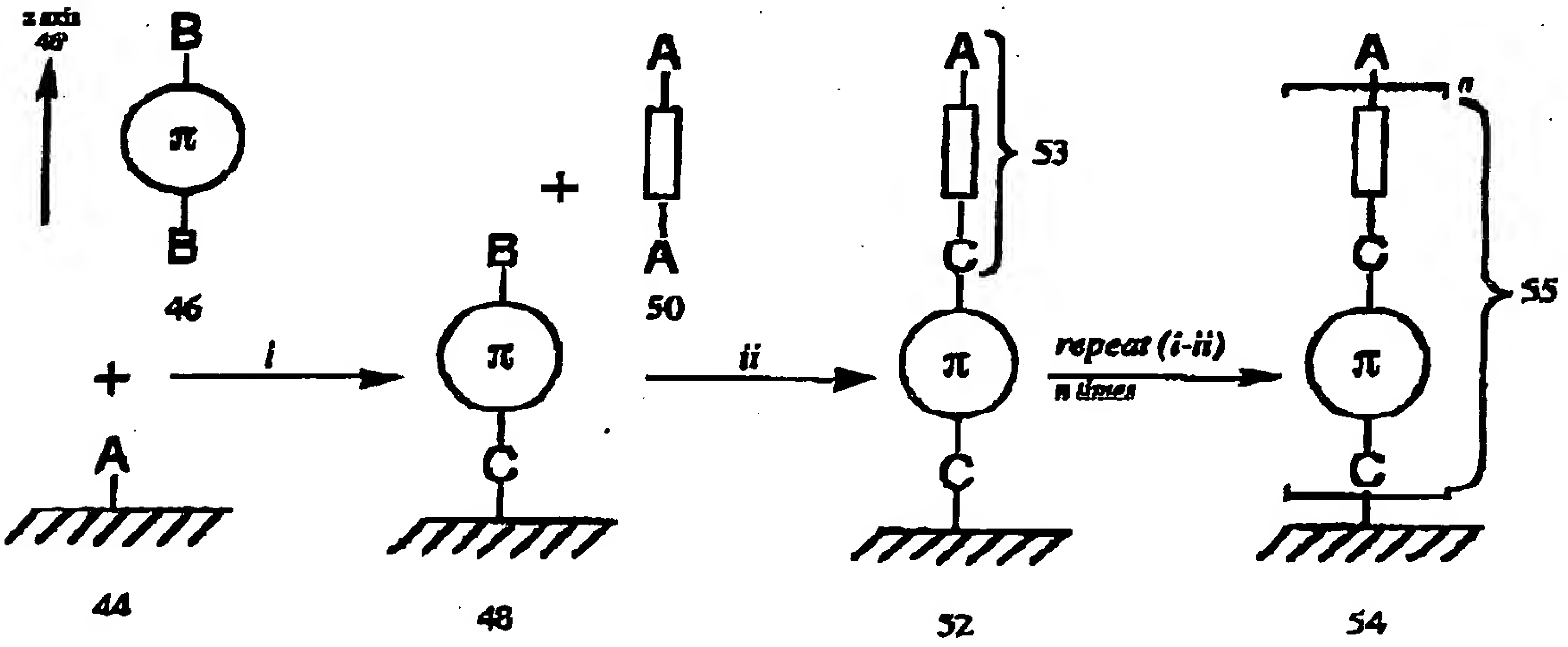


FIG.3A

09627545.100101

09967245 . 100101

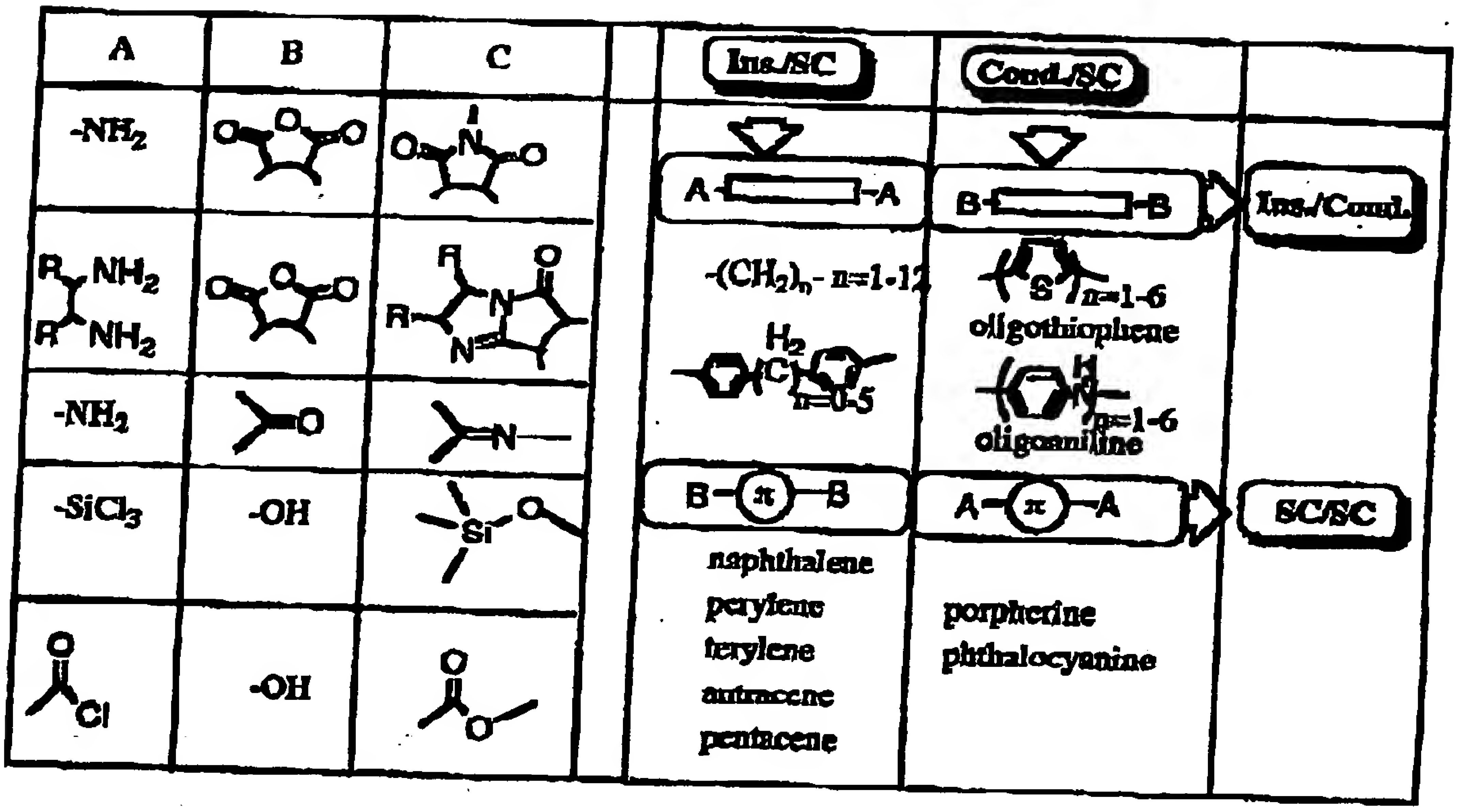


FIG.3B

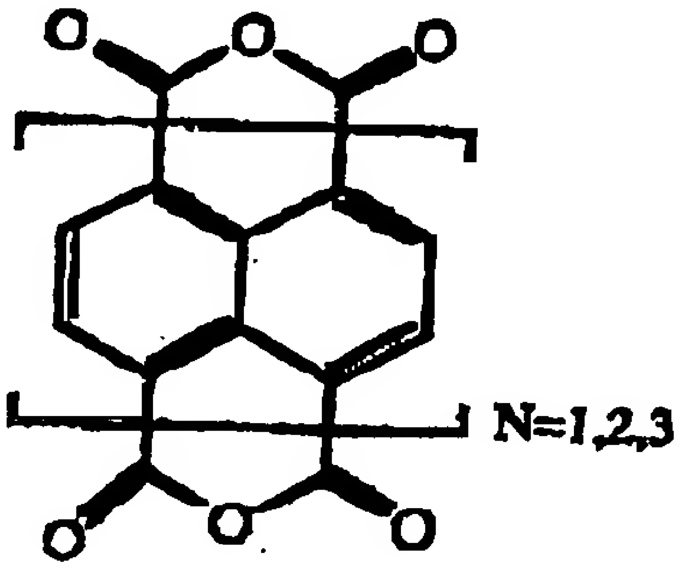


FIG.4A

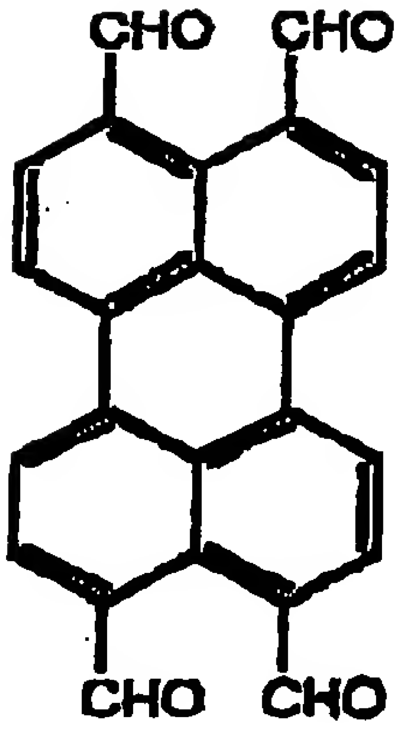


FIG.4B

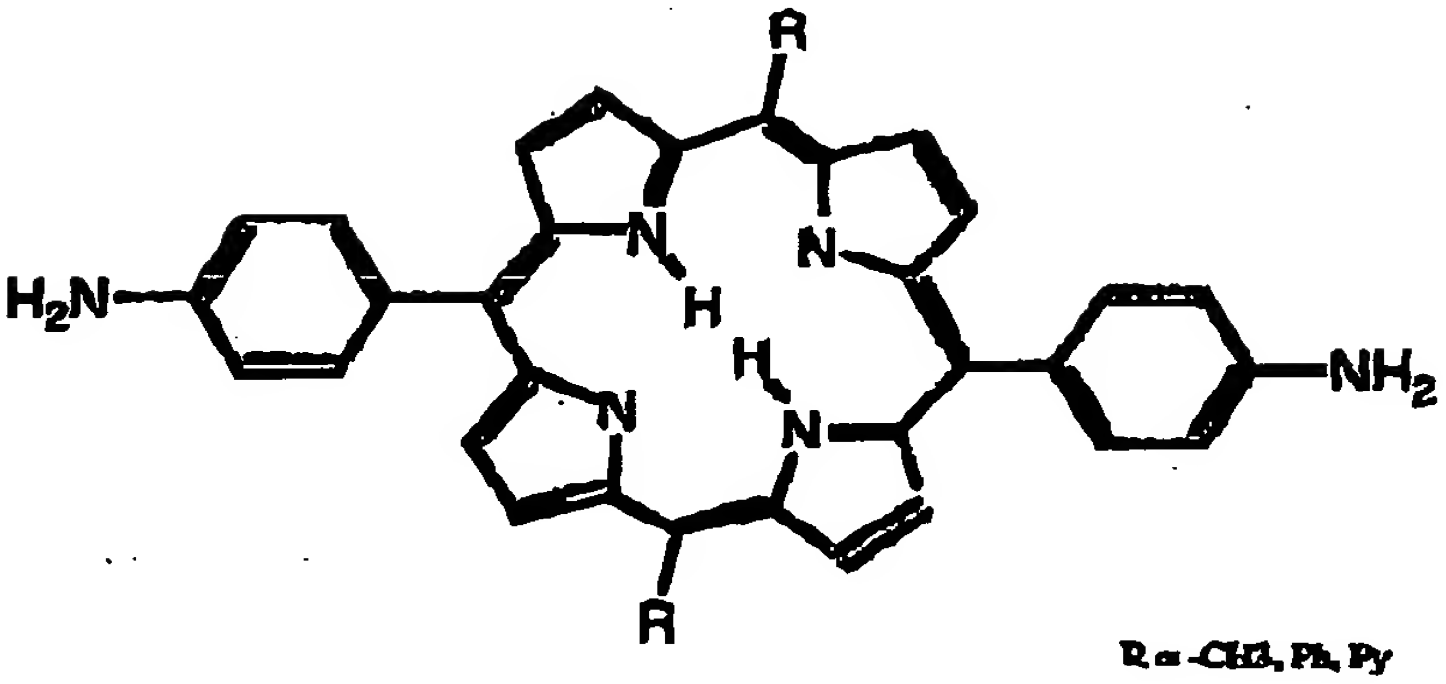


FIG.4C

09966745.100101

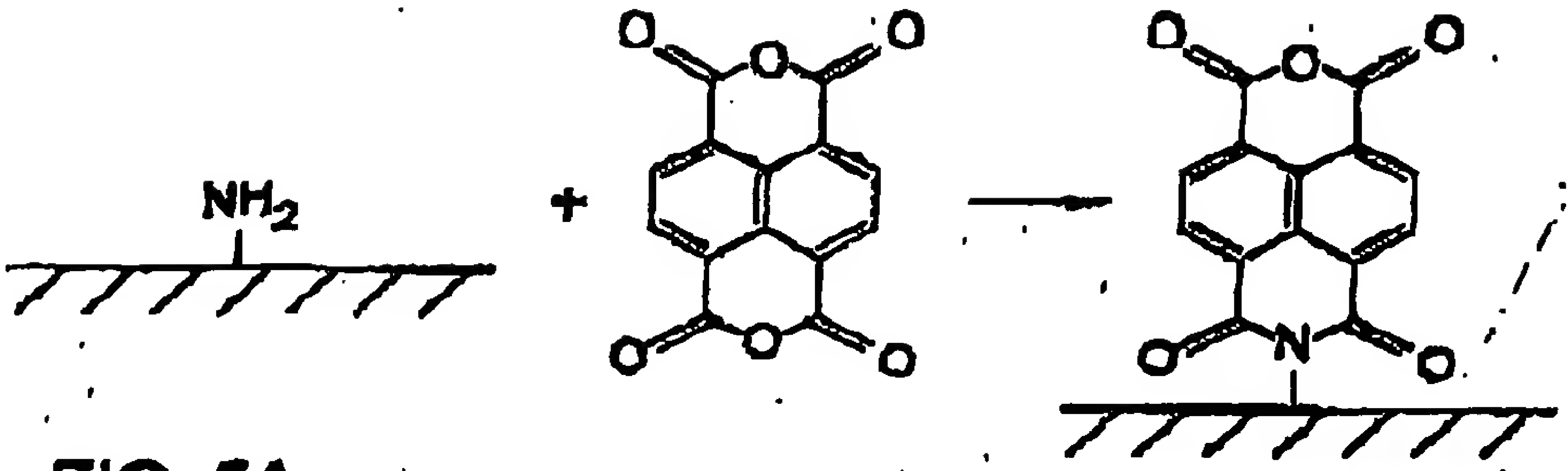


FIG. 5A

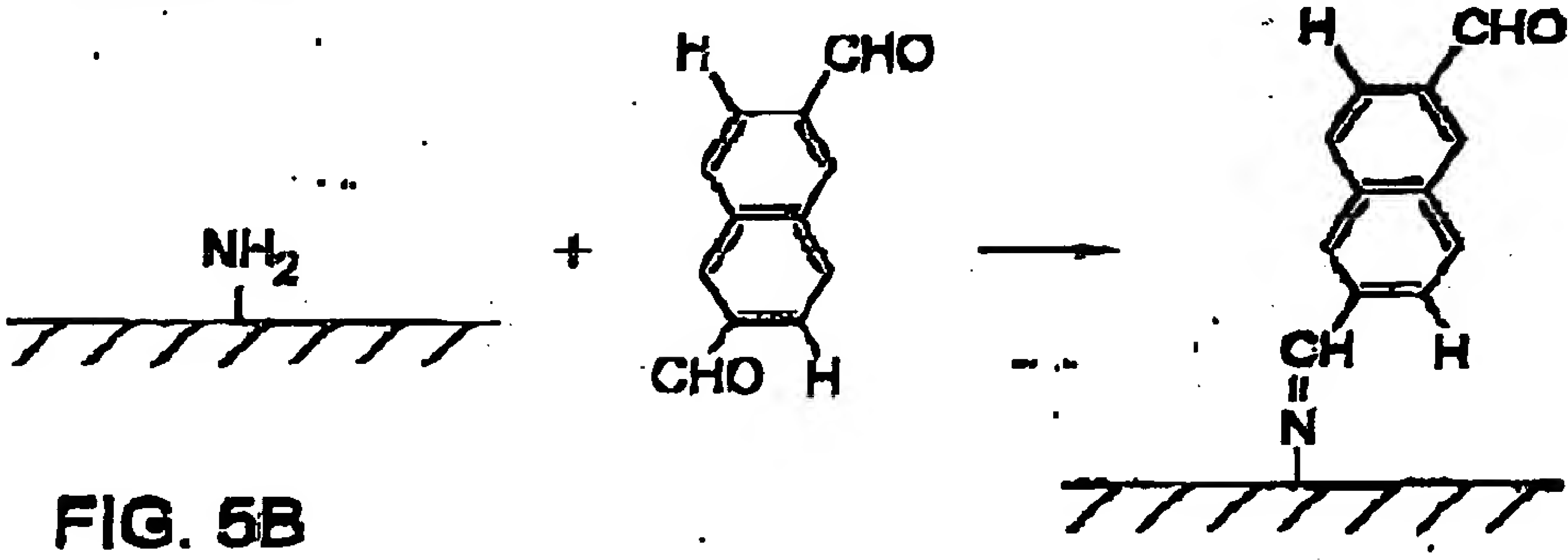


FIG. 5B

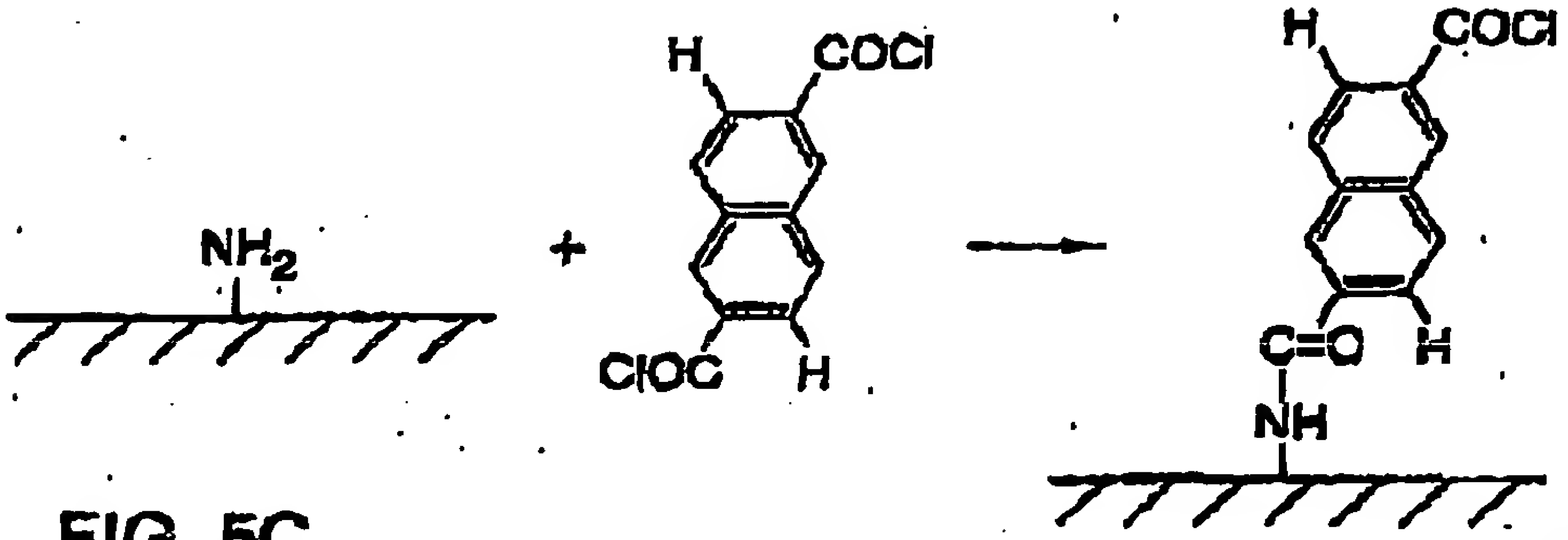


FIG. 5C

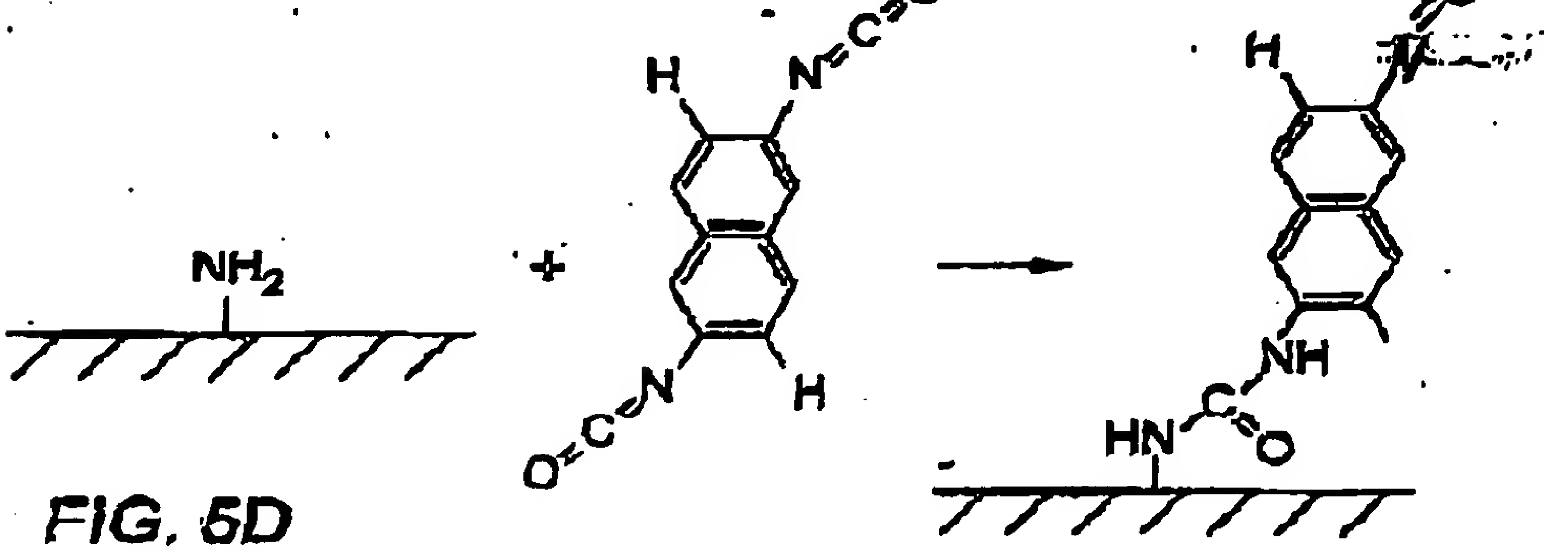


FIG. 5D

09965745 .100101

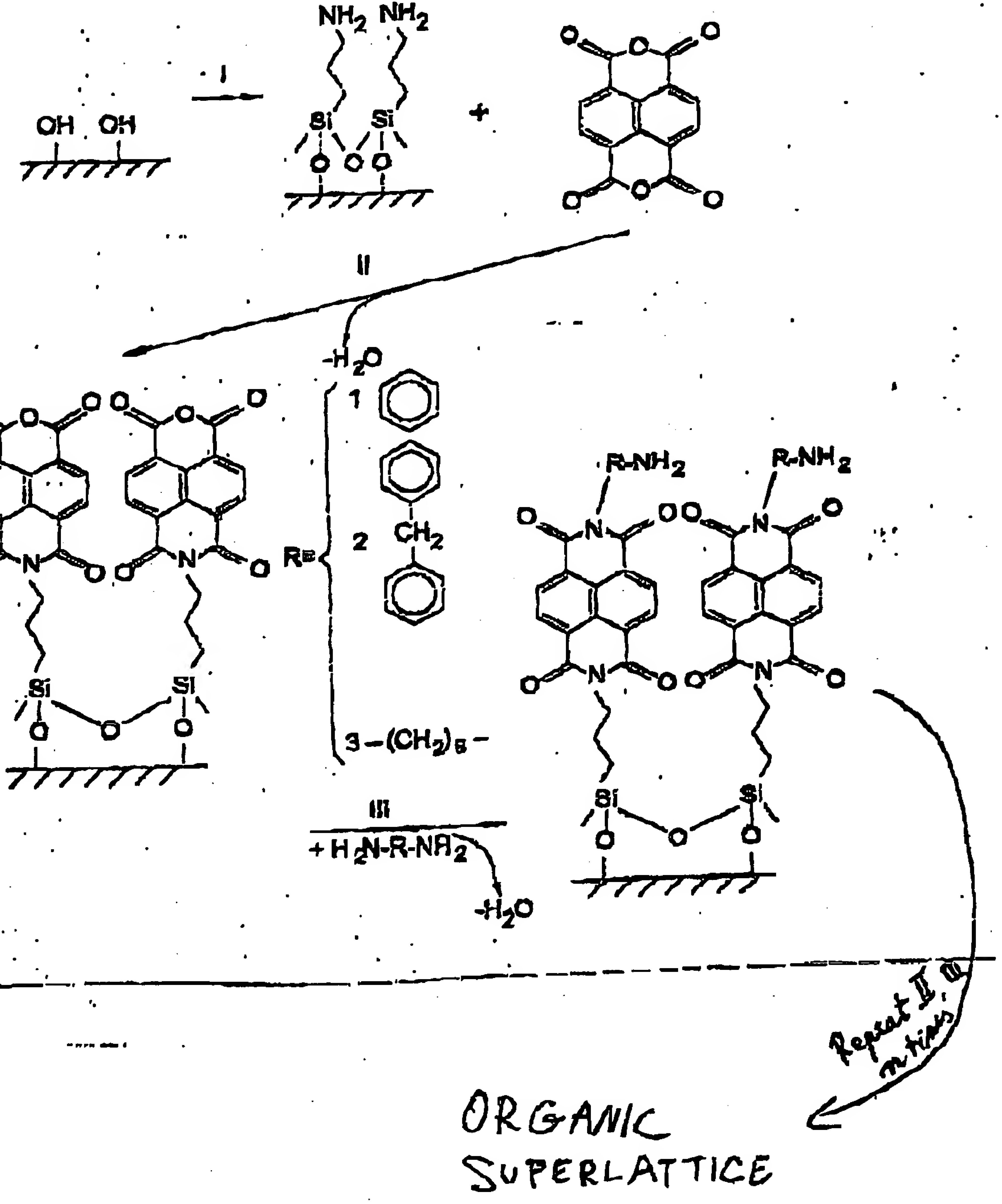


Fig. 6

09966745.100101

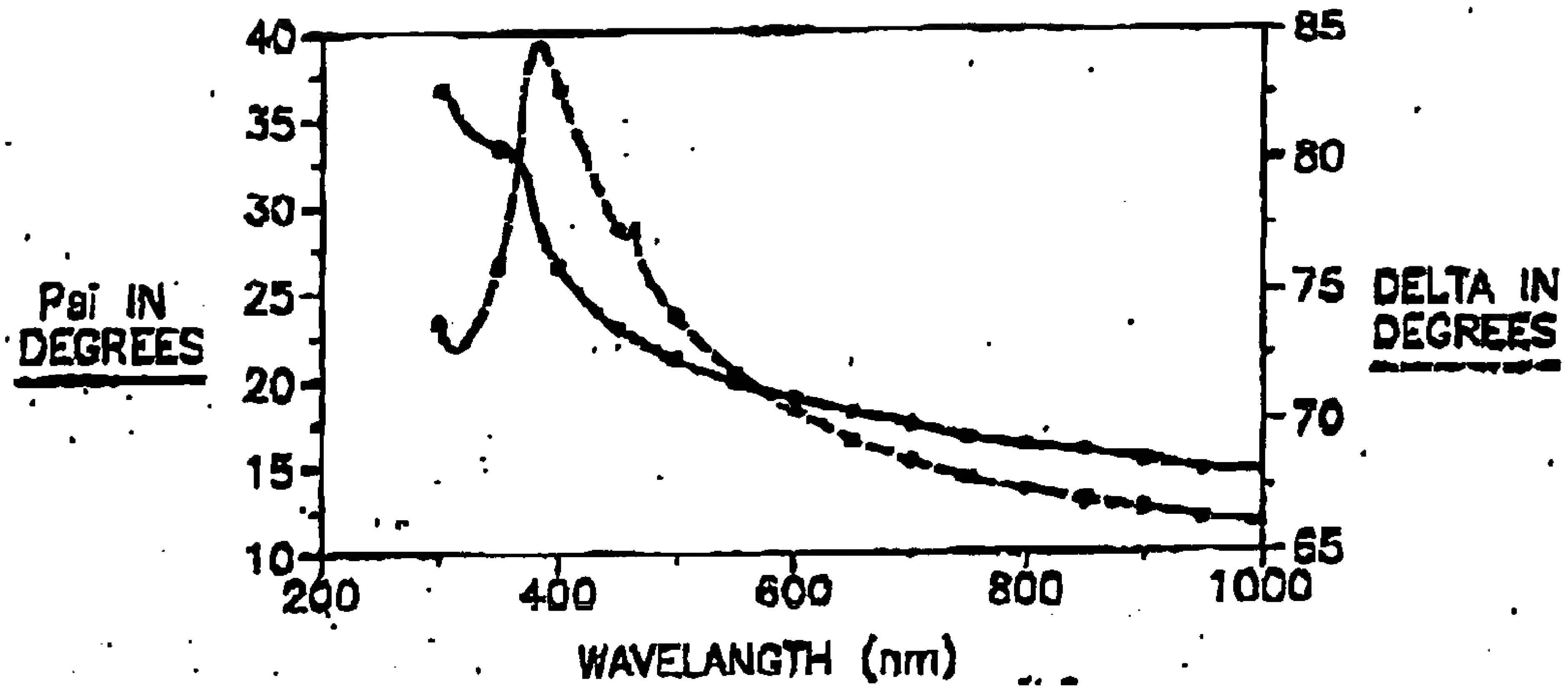


FIG.7

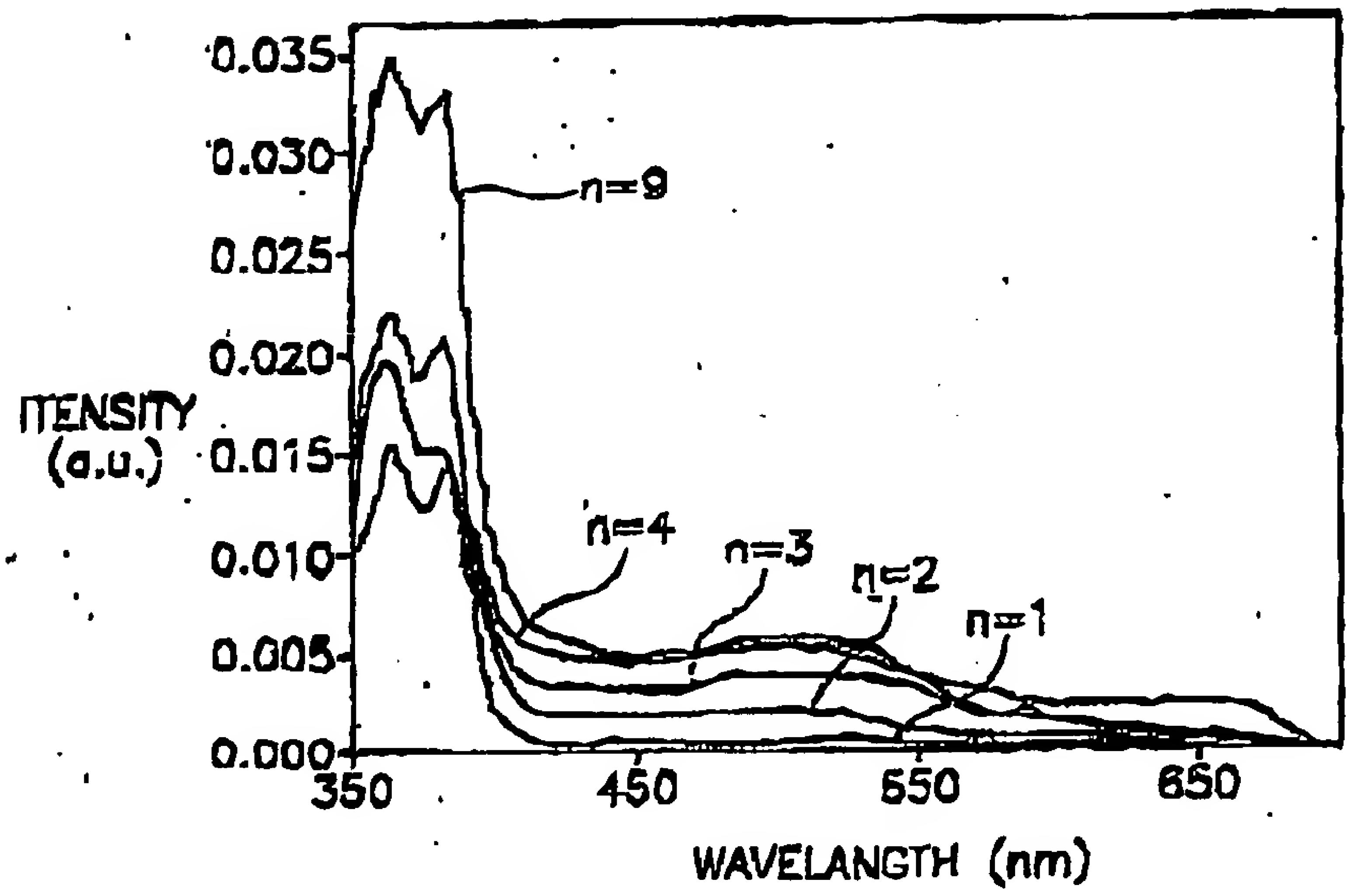


FIG.8

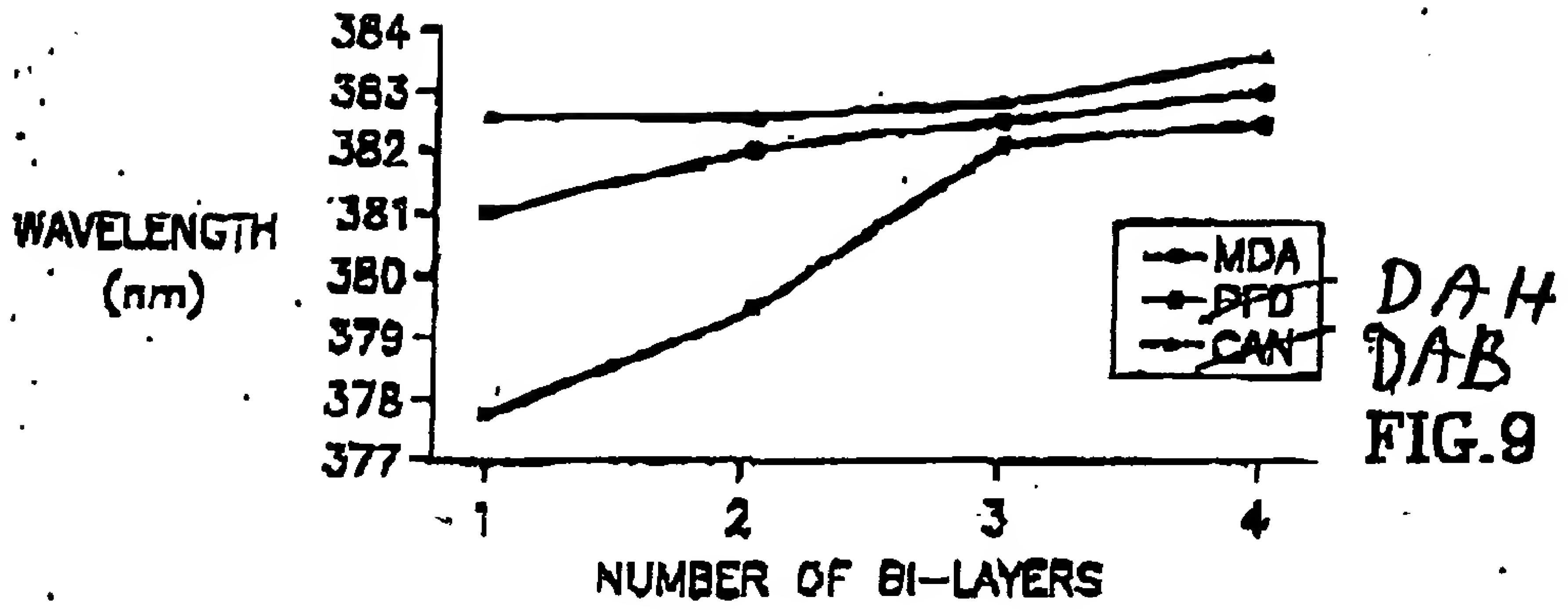


FIG.9

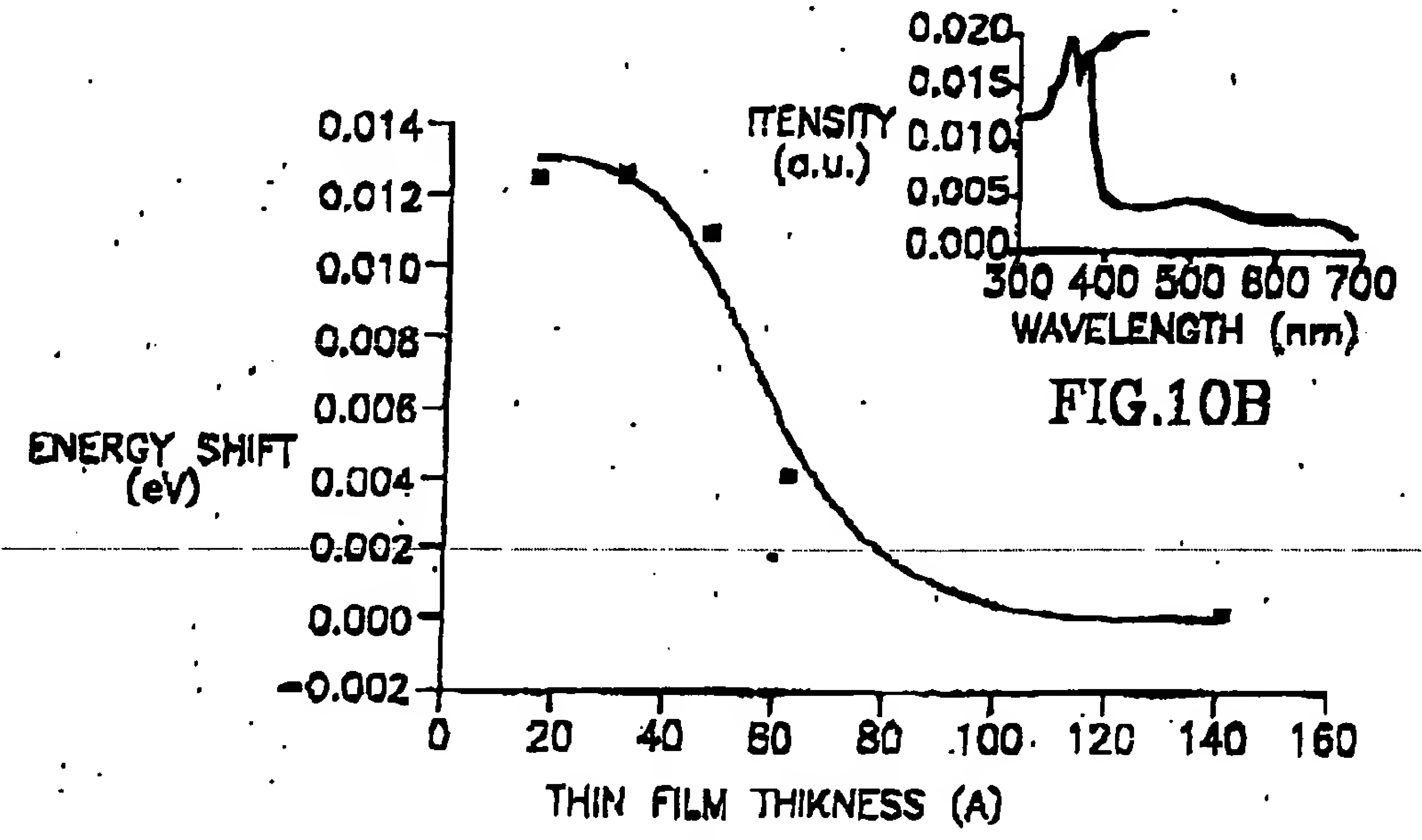


FIG.10B

FIG.10A

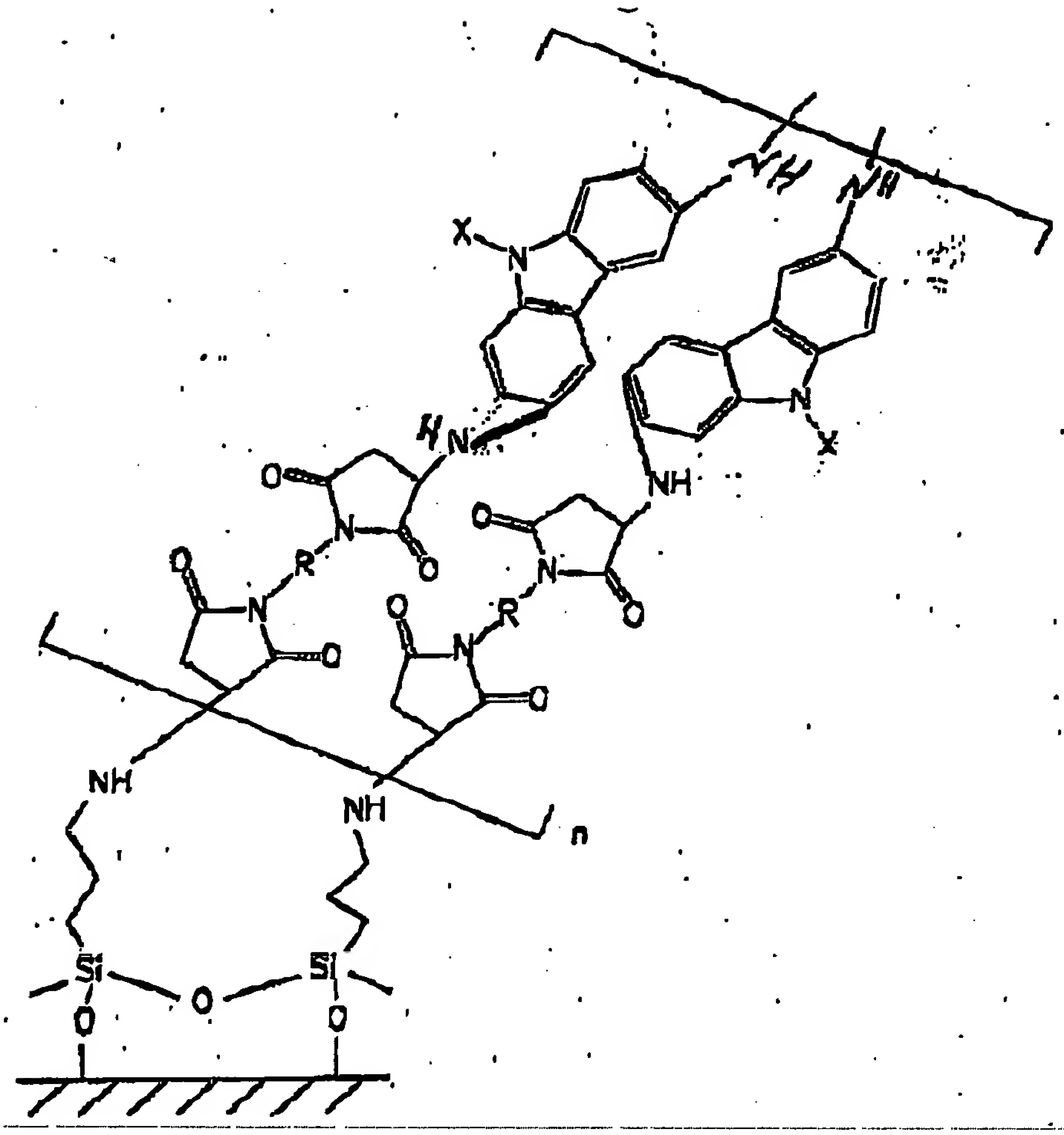


FIG.11

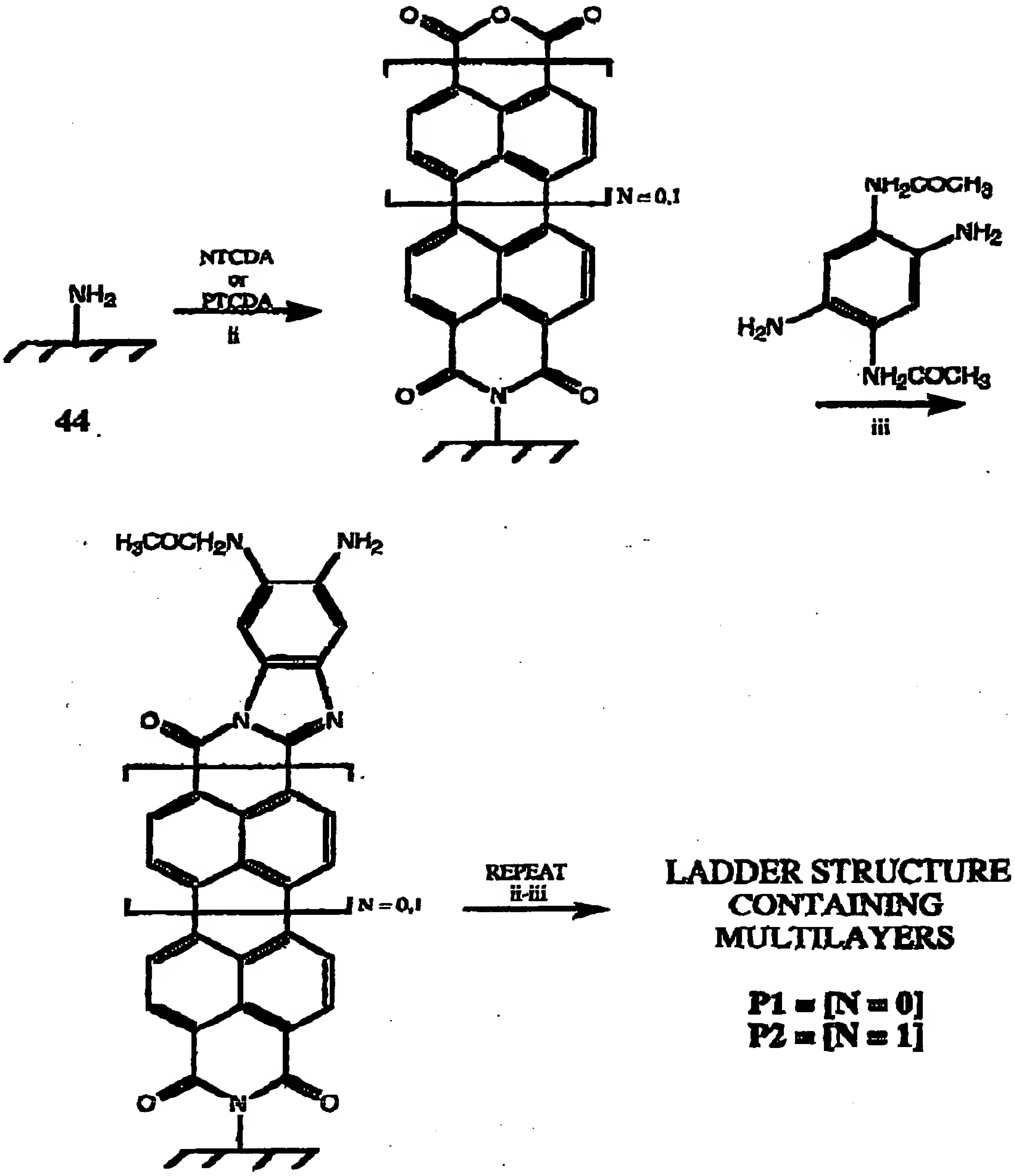
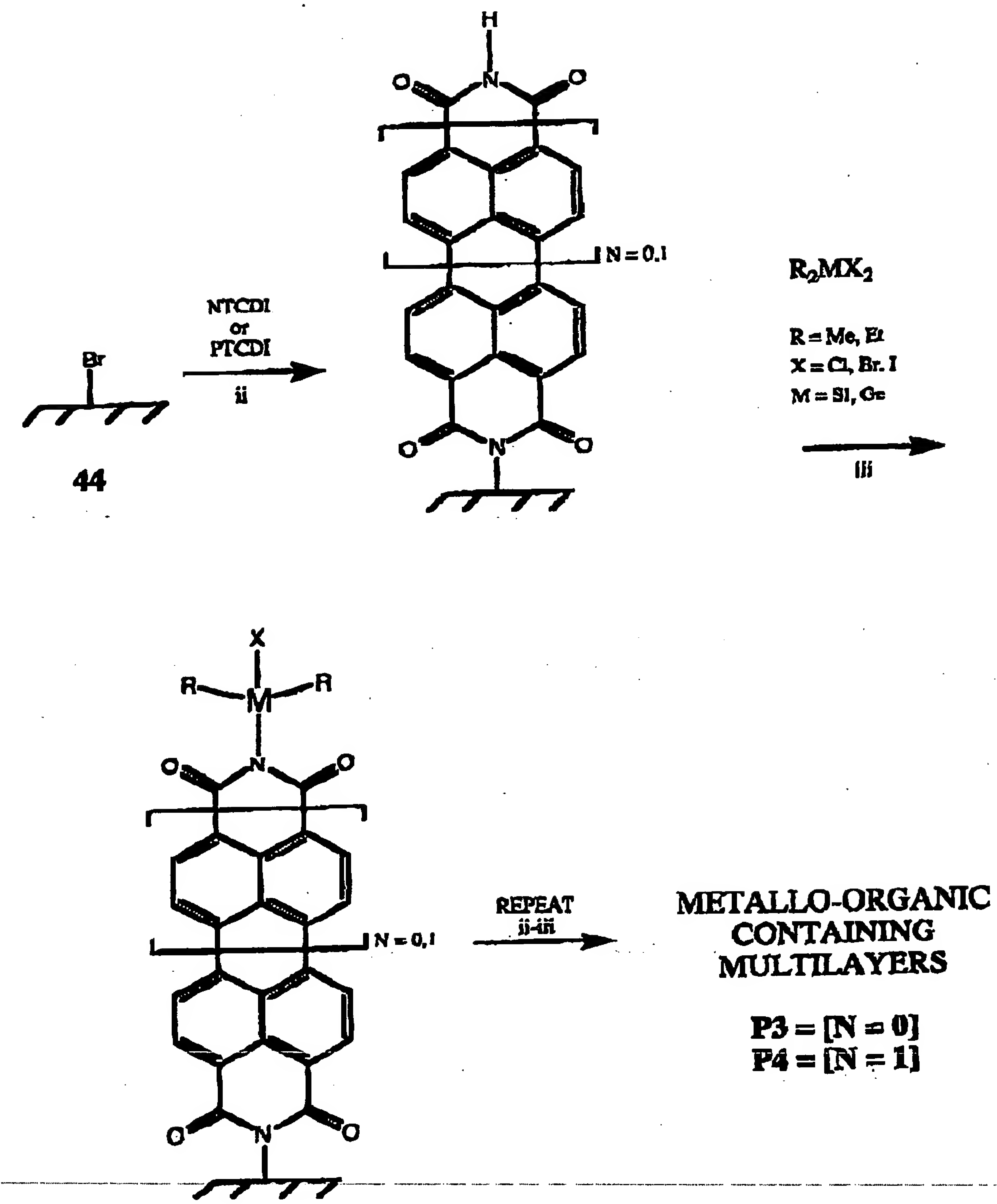

NH2
44
NTCDA
or
PTCDA
ii
N = 0,1
NH2COCH3
NH2
H2N
NH2COCH3
iii
H3COCH2N
NH2
N = 0,1
REPEAT
ii-iii
LADDER STRUCTURE
CONTAINING
MULTILAYERS
P1 = [N = 0]
P2 = [N = 1]

FIG.12A



H
O
N
O
N = 0,1
Br
NTCDI
or
PTCDI
ii
44
O
N
O
R_2MX_2
R = Me, Et
X = Cl, Br, I
M = Si, Ge
iii
X
R
M
R
O
N
O
N = 0,1
O
N
O
REPEAT
ii-iii
METALLO-ORGANIC CONTAINING MULTILAYERS
P3 = [N = 0]
P4 = [N = 1]

FIG.12B

09699745.100101

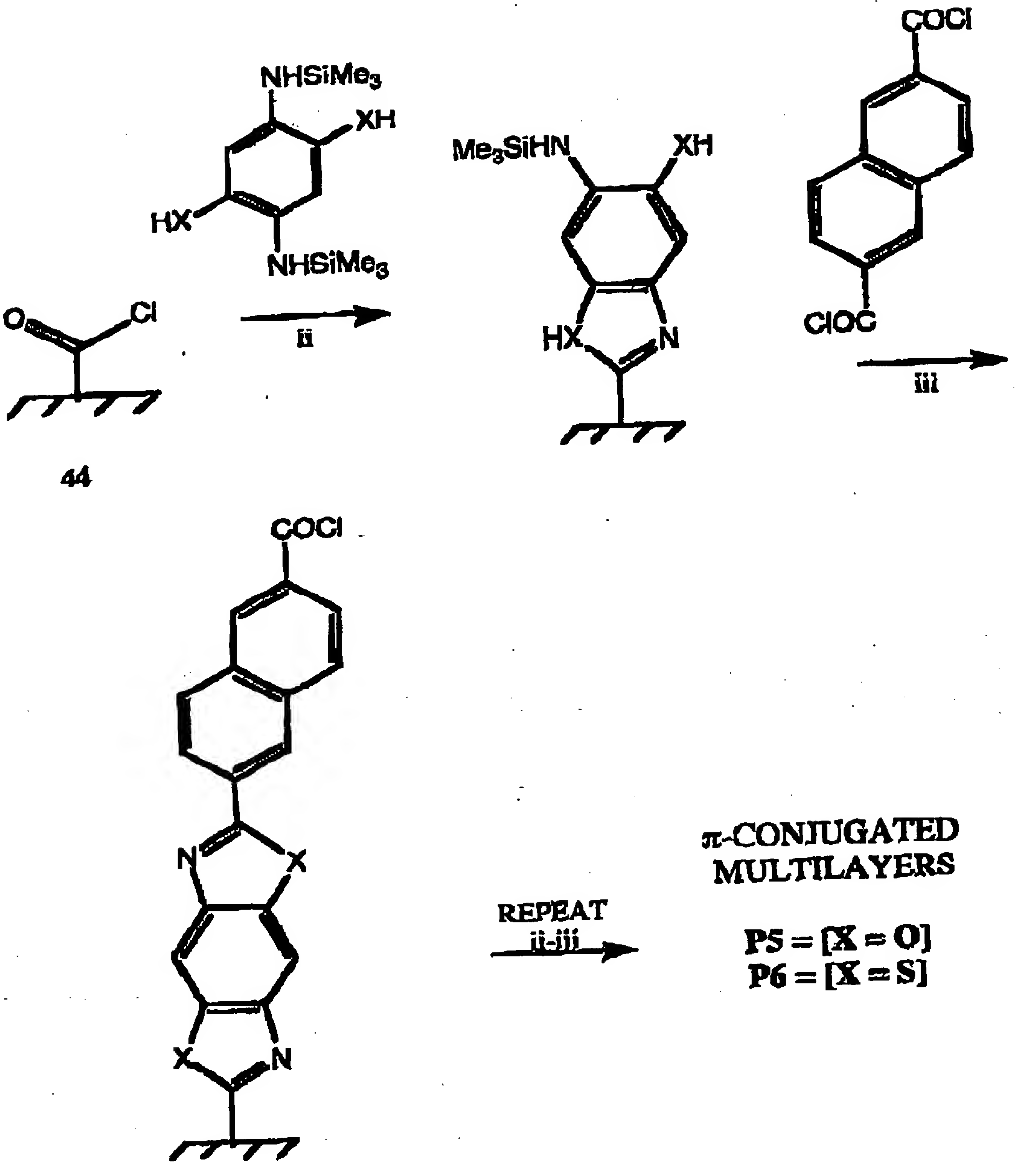


FIG.12C

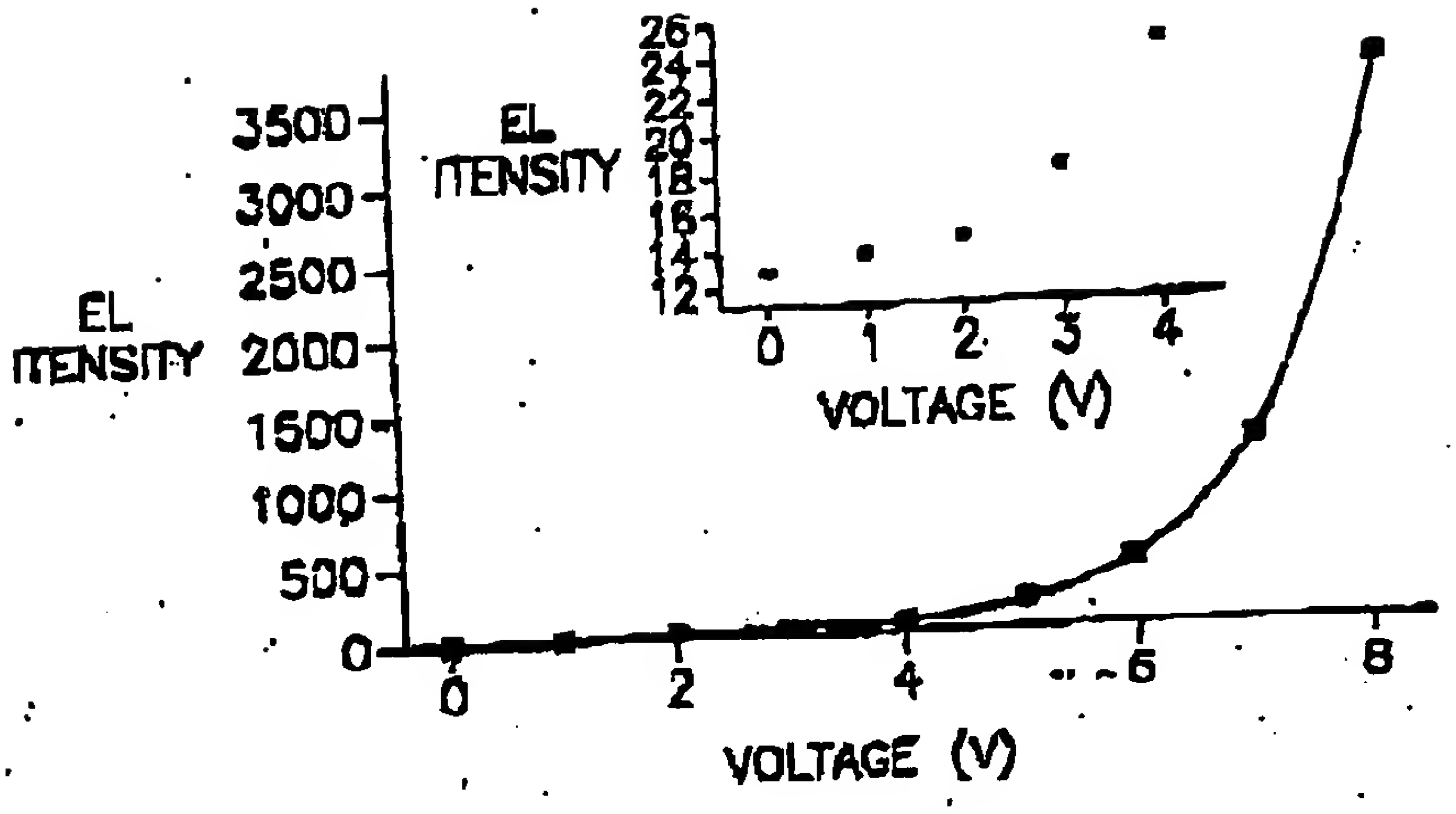


FIG.13A

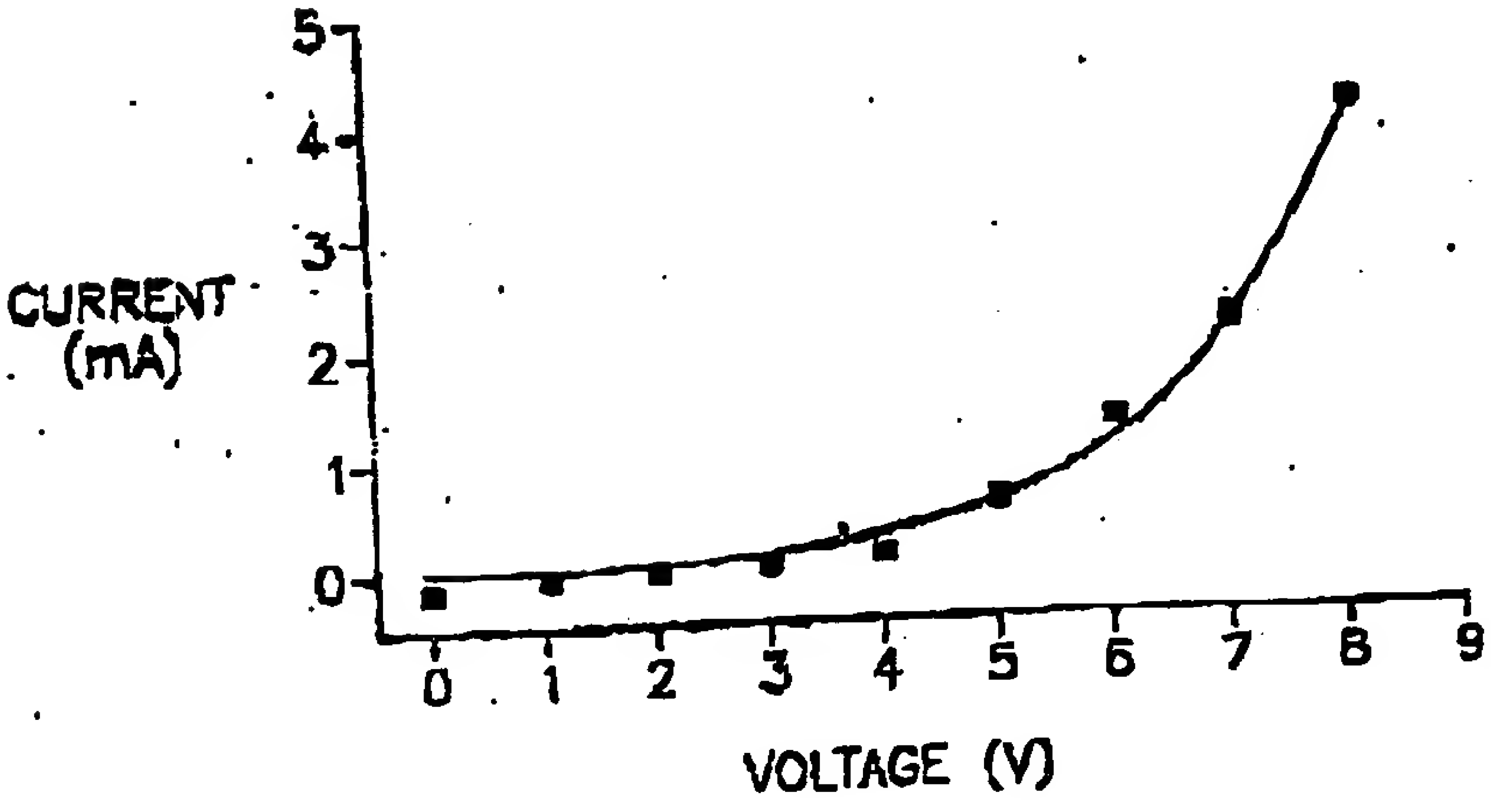


FIG.13B

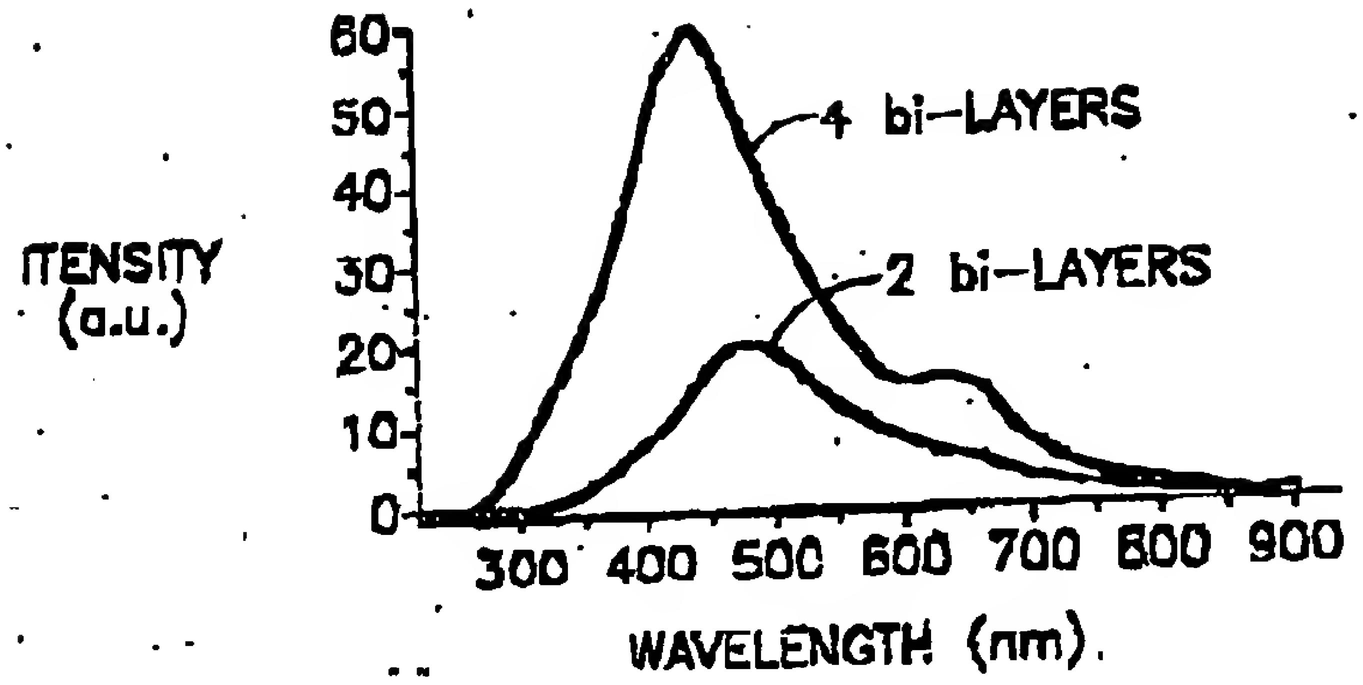


FIG.14

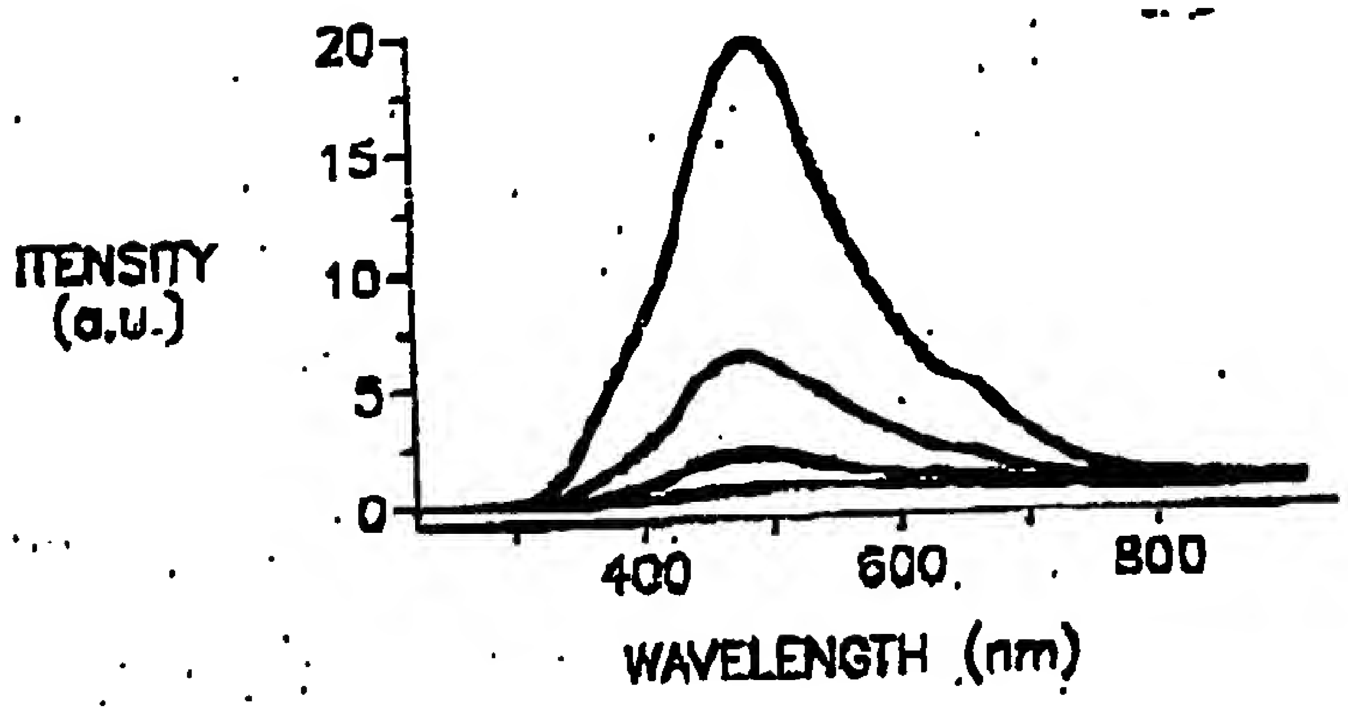


FIG.15

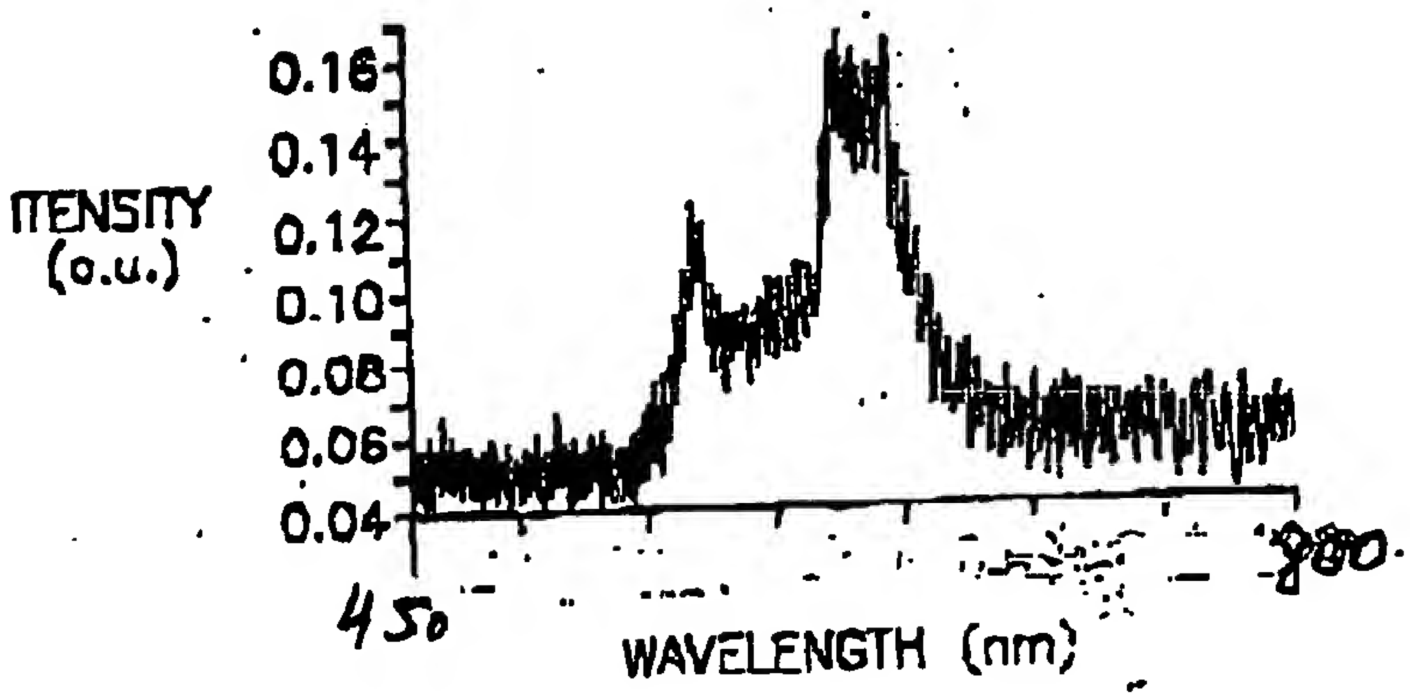


FIG.16

09657945.100101

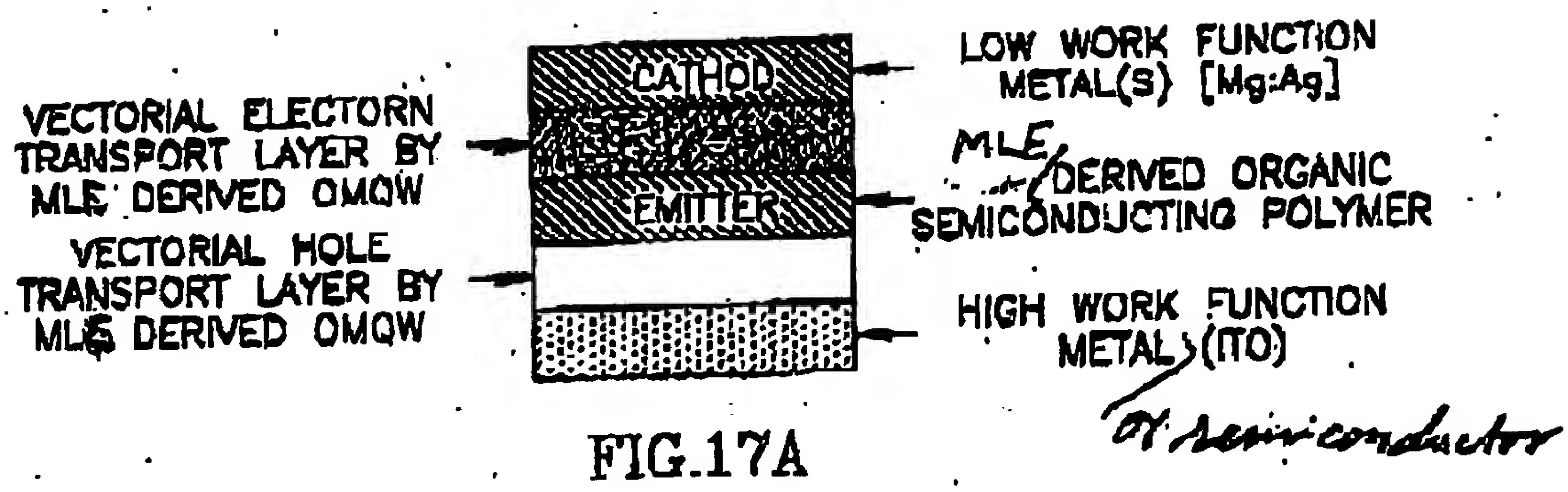


FIG.17A

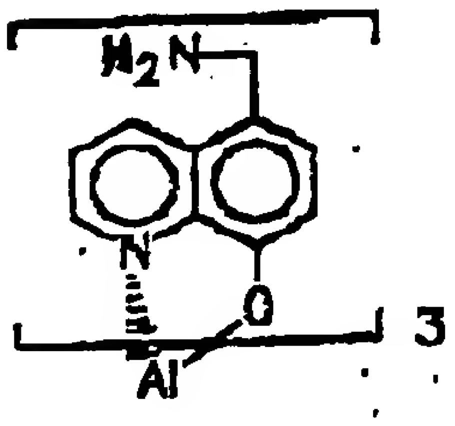


FIG.17B

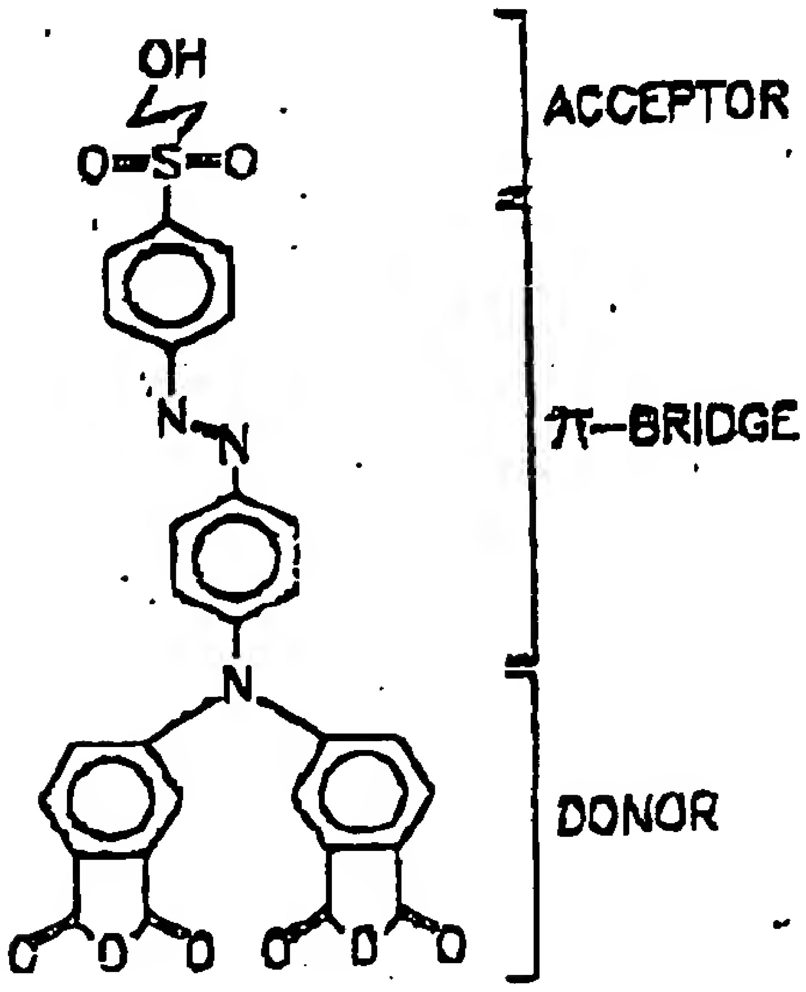
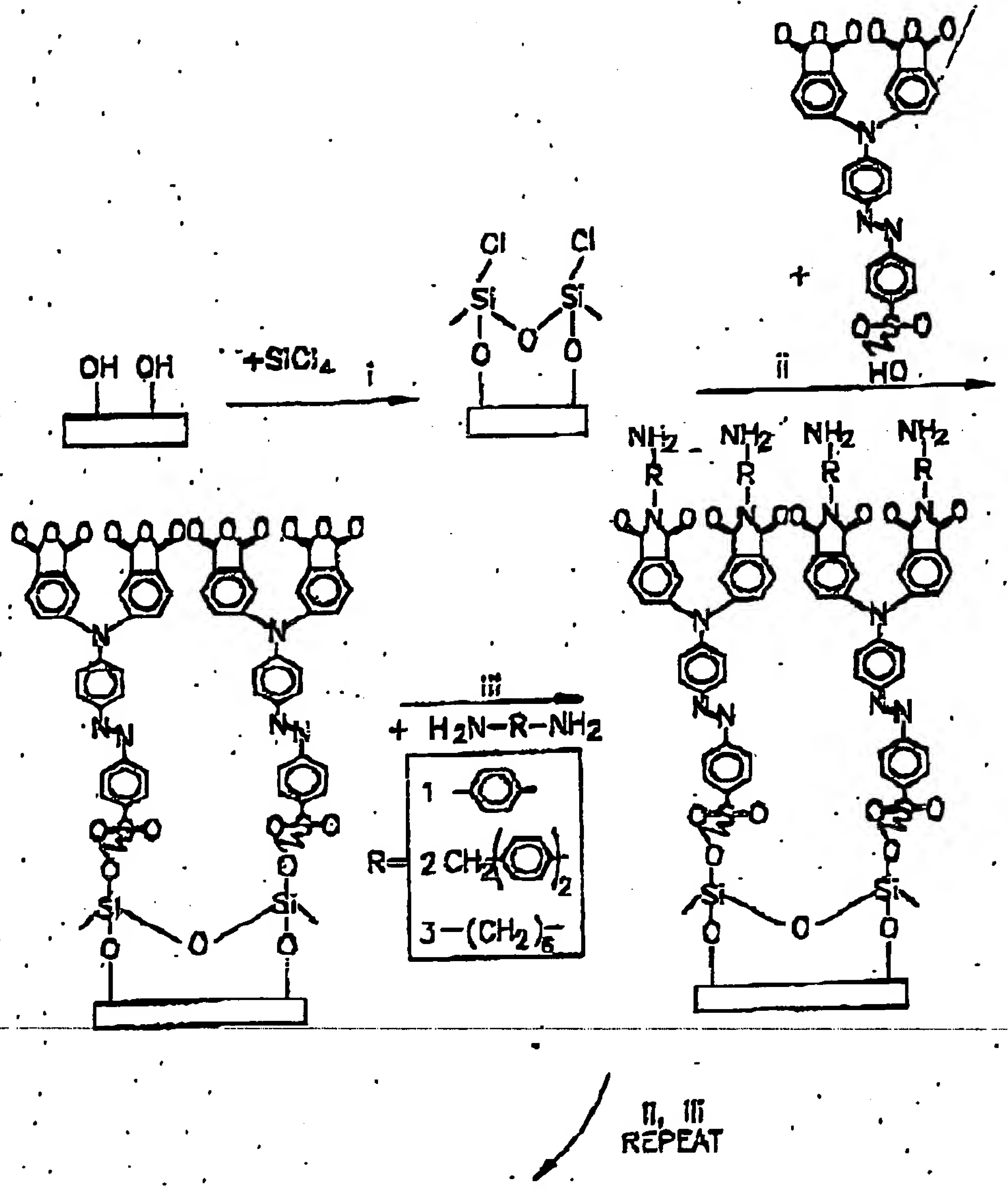


FIG.18



ORGANIC SUPERLATTICE

FIG.19